

IN THE ABSTRACT

Replace the abstract originally provided on the cover sheet of the PCT application with the following new abstract. A new abstract numbered page 51 is enclosed for the last page of the application following the claims.

ABSTRACT OF THE DISCLOSURE

An optical modulator has an optical splitter for splitting an input light beam into a first and second light beam; a first and a second wave-guide arm connected to the optical splitter for receiving and transmitting therethrough the first and second light beam, respectively, the waveguide arms each including a core region having group IV semiconductor material or a combination of group IV semiconductor materials; an optical combiner connected to the first and second waveguide arm for receiving the first and second light beam and combining them into an output light beam; a first and a second electrode structure associated with the first and second waveguide arm, respectively; and a driving circuit for supplying voltage to the first and second electrode structure. The driving circuit is adapted to supply a first modulation voltage superimposed to a first bias voltage to the first electrode structure and a second modulation voltage superimposed to a second bias voltage to the second electrode structure.